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<u>Claims</u>

1	1. A method for treating a subject suffering from cancer, said
2	method comprising the step of:
3	administering to a subject a therapeutically effective amount of a herpes
4	simplex virus (HSV) comprising a nucleic acid sequence encoding for an agent
5	selected from the group consisting of interleukin-12, granulocyte macrophage
6	colony stimulating factor, and cytosine deaminase such that a direct anti-cancer
7	response is induced in the subject.
1 2	2. A method according to claim 1, wherein said administering step comprises intratumorally disposing the HSV into the subject.
1 2	3. A method according to claim 1, wherein the HSV vector is substantially aneurovirulent.
1 2	4. A method according to claim 3, wherein the HSV vector is replication competent.
1	5. A method according to claim 3, wherein the HSV vector
2	comprises a deletion of the $\gamma_1 34.5$ gene.
1	6. A method according to claim 5, wherein IL-12 genes are

inserted within the $\gamma_1 34.5$ gene deletion.

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- 7. A method according to claim 6, wherein the IL-12 genes comprise subunits p35 and p40 separated by an IRES sequence.
- 8. A method according to claim 7, wherein said IL-12 encoding nucleic acid sequence bicistronically expresses the p35 and p40 subunits to

produce self-assembling, heterodimeric IL-12 in the HSV vector.

- 9. An anti-tumor pharmaceutical composition comprising a herpes simplex virus (HSV) vector comprising a nucleic acid sequence encoding for a compound selected from the group consisting of IL-12 operatively linked to a manimalian promoter, GM-CSF operatively linked to a promoter, and CD operatively linked to a promoter; and a pharmaceutically acceptable carrier.
- 1 10. A pharmaceutical composition according to claim 9, wherein 2 said HSV vector is substantially aneurovirulent.
- 1 11. A pharmaceutical composition according to claim 9, wherein 2 said HSV vector is replication competent.
- 1 12. A pharmaceutical composition according to claim 9, wherein 2 said HSV vector has been transformed with an expression cassette comprising nucleic acid sequences encoding for the p40 and p35 of IL-12, said subunits being separated from each other by an IRES encoding sequence.